

## Indiana Department of Environmental Management

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue P. O. Box 6015 Indianapolis, Indiana 46206-6015 (317) 232-8603 (800) 451-6027 www.IN.gov/idem

May 21, 2003

Mr. Michael A. Schwenk Jasper Engine Exchange, Inc. P.O. Box 650 Jasper, IN 47547

> Re: 037-16744-00089 Minor Source Modification to:

Part 70 Operating Permit No.: T 037-7736-00089

Dear Mr. Schwenk:

Jasper Engine Exchange, Inc. was issued Part 70 Operating Permit T 037-7736-00089 on December 31, 1998 for a stationary engine, transmission and differential parts remanufacturing plant. An application to modify the source was received on January 29, 2003. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

- one (1) air atomization paint spray booth, to be constructed, identified as PTB-007, capable of painting a maximum of thirty (30) units per hour, using dry filters for overspray control, and exhausting through one (1) stack, identified as PB007.
- one (1) soda blasting unit, identified as BLA-037, to be constructed, equipped with a baghouse for particulate control, identified as BLA-037, exhausting inside the building, capacity: 60 units per hour.

The following construction conditions are applicable to the proposed project:

## **General Construction Conditions**

- The data and information supplied with the application shall be considered part of this source modification approval. Prior to <u>any</u> proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
- 2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
- 3. <u>Effective Date of the Permit</u>
  Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
- 4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

- 5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.
- 6. Pursuant to 326 IAC 2-7-10.5(I) the emission units constructed under this approval shall <u>not</u> be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

This minor source modification authorizes construction of the new emission units. Operating conditions shall be incorporated into the Part 70 Operating Permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(I)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter contact Craig J. Friederich, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395, ext.19 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Original signed by Paul Dubenetzky Paul Dubenetzky, Chief Permits Branch Office of Air Quality

Attachments CJF/MES

cc: File -Dubois County

Dubois County Health Department

Southwest Regional Office

Air Compliance Section Inspector - Gene Kelso

Compliance Branch - Karen Nowak Administrative and Development

Technical Support and Modeling - Michele Boner



## Indiana Department of Environmental Management

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon Governor

Lori F. Kaplan Commissioner

100 North Senate Avenue P. O. Box 6015 Indianapolis, Indiana 46206-6015 (317) 232-8603 (800) 451-6027 www.IN.gov/idem

# PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

Jasper Engine Exchange, Inc. 815 Wernsing Road Jasper, Indiana 47547

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

| First Minor Source Modification 037-16744-00089  | Sections Affected: A.2, C.23, D.5 |
|--|-----------------------------------|
| Issued by:Original signed by Paul Dubenetzky<br>Paul Dubenetzky, Branch Chief<br>Office of Air Quality | Issuance Date: May 21, 2003       |

## First Minor Source Modification 037-16744-00089 Modified by CJF/MES

Page 2 of 10 T037-7736-00089

## **TABLE OF CONTENTS**

| Α | SOUR          | CE SUMMARY   | 5  |
|---|---------------|--|----|
|   | A.1           | General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]                             |    |
|   | A.2           | Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]           |    |
|   | A.3           | Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] |    |
|   | A.4           | Part 70 Permit Applicability [326 IAC 2-7-2]   |    |
|   |               |  |    |
| В |               |  | 8  |
|   | B.1           | Permit No Defense [326 IAC 2-1-10] [IC 13]   |    |
|   | B.2           | Definitions [326 IAC 2-7-1]  |    |
|   | B.3           | Permit Term [326 IAC 2-7-5(2)]   |    |
|   | B.4           | Enforceability [326 IAC 2-7-7(a)]  |    |
|   | B.5           | Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]                    |    |
|   | B.6           | Severability [326 IAC 2-7-5(5)]  |    |
|   | B.7           | Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]                           |    |
|   | B.8           | Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)]    |    |
|   | B.9           | Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]          |    |
|   | B.10          | Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)]                                    |    |
|   | B.11          | Annual Compliance Certification [326 IAC 2-7-6(5)]                                     |    |
|   | B.12          | Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)]  |    |
|   | B.13          | Emergency Provisions [326 IAC 2-7-16]  |    |
|   | B.14          | Permit Shield [326 IAC 2-7-15]   |    |
|   | B.15          | Multiple Exceedances [326 IAC 2-7-5(1)(E)]   |    |
|   | B.16          | Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]           |    |
|   | B.17          | Permit Modification, Reopening, Revocation and Reissuance, or Termination              |    |
|   | B.18          | Permit Renewal [326 IAC 2-7-4]   |    |
|   | B.19          | Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]                      |    |
|   | B.20          | Permit Revision Under Economic Incentives and Other Programs                           |    |
|   | B.21          | Changes Under Section 502(b)(10) of the Clean Air Act [326 IAC 2-7-20(b)]              |    |
|   | B.22          | Operational Flexibility [326 IAC 2-7-20]   |    |
|   | B.23          | Construction Permit Requirement [326 IAC 2]  |    |
|   | B.24          | Inspection and Entry [326 IAC 2-7-6(2)]  |    |
|   | B.25          | Transfer of Ownership or Operation [326 IAC 2-1-6] [326 IAC 2-7-11]                    |    |
|   | B.26          | Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]                                 |    |
|   | B.27          | Enhanced New Source Review [326 IAC 2]   |    |
|   | D. <b>_</b> . |  |    |
| С | SOUR          | CE OPERATION CONDITIONS  | 19 |
|   |               |  |    |
|   |               | ion Limitations and Standards [326 IAC 2-7-5(1)]                                       |    |
|   |               | Particulate Matter Emission Limitations For Processes with Process Weight Rates        |    |
|   | C.2           | Opacity [326 IAC 5-1]  |    |
|   | C.3           | Open Burning [326 IAC 4-1] [IC 13-17-9]  |    |
|   | C.4           | Incineration [326 IAC 4-2] [326 IAC 9-1-2]   |    |
|   | C.5           | Fugitive Dust Emissions [326 IAC 6-4]  |    |
|   | C.6           | Operation of Equipment [326 IAC 2-7-6(6)]  |    |
|   | C.7           | Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]               |    |
|   | Testin        | g Requirements [326 IAC 2-7-6(1)]  |    |
|   | C.8           | Performance Testing [326 IAC 3-6]  |    |
|   | Compl         | iance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]                    |    |
|   | C.9           | Compliance Schedule [326 IAC 2-7-6(3)]   |    |
|   | C.10          | Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]                            |    |
|   |               | · · · · · · · · · · · · · · · · · ·  |    |

Jasper Engine Exchange, Inc. 037-16744-00089 Jasper, Indiana Permit Reviewer: SCP/EVP

C.11

C.12 C.13

C.15 C.16

C.17

C.19

C.20

C.21

C.23

**D.1** 

**D.2** 

First Minor Source Modification Page 3 of 10 T037-7736-00089 Modified by CJF/MES Maintenance of Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)] Monitoring Methods [326 IAC 3] **Pressure Gauge Specifications** Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6] Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3] Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215] Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5] Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)] General Record Keeping Requirements [326 IAC 2-7-5(3)] General Reporting Requirements [326 IAC 2-7-5(3)(C)] **Stratospheric Ozone Protection** Compliance with 40 CFR 82 and 326 IAC 22-1 Part 2 MACT Application Submittal Requirement Application Requirements for Section 112(j) of the Clean Air Act [40 CFR 63.52(b) and (e)] [40 CFR 63.56(a)] [40 CFR 63.9(b)] [326 IAC 2-7-12] Emission Limitations and Standards [326 IAC 2-7-5(1)] D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9] [326 IAC 8-1-6] D.1.2 Particulate Matter (PM) [326 IAC 6-3-2(c)] D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)] **Compliance Determination Requirements** D 1.4 Testing Requirements [326 IAC 2-7-6(1)] . . . 33

| D. 1. 1 | rooting requirements [620 into 2 7 o(1)]  |
|---------|---|
| D.1.5   | ance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] Particulate Matter (PM) Monitoring                             |
|         | Keeping Requirements [326 IAC 2-7-5(3)] Record Keeping Requirements   |
| FACILI  | TY OPERATION CONDITIONS - Reciprocating Internal Combustion Engines   |
|         | on Limitations and Standards [326 IAC 2-2 and 40 CFR 52.21] [326 IAC 2-3] VOC, NOx and CO Emissions [326 IAC 2-2 and 40 CFR52.21] |
| •       | ance Determination Requirements Testing Requirements [326 IAC 2-7-6(1),(6)]   |
| D.2.3   | Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] Record Keeping Requirements Reporting Requirements         |

| D.3   | FACILITY OPERATION CONDITIONS - Three (3) Baghouses  |
|-------|--|
|       | Emission Limitations and Standards [326 IAC 2-7-5(1)]  |
|       | D.3.1 Particulate Matter (PM) [326 IAC 6-3]  |
|       | D.3.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]  |
|       | Compliance Determination Requirements  D.3.3 Testing Requirements [326 IAC 2-7-6(1),(6)]]  |
|       | Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]  D.3.4 Particulate Matter (PM)  D.3.5 Visible Emissions Notations  D.3.6 Parametric Monitoring  D.3.7 Baghouse Inspections  D.3.8 Broken or Failed Bag/Wet Scrubber Detection                                 |
|       | Record Keeping Requirements [326 IAC 2-7-5(3)] D.3.9 Record Keeping Requirements   |
| D.4   | FACILITY OPERATION CONDITIONS - Insignificant Activities   |
|       | Emission Limitations and Standards [326 IAC 2-7-5(1)]  D.4.1 Particuate Matter (PM) [326 IAC 6-2-4]  D.4.2 Volatile Organic Compounds [326 IAC 8-3-2]  D.4.3 Volatile Organic Compounds [326 IAC 8-3-5]  D.4.4 Volatile Organic Compounds  D.4.5 Particulate Matter (PM) [326 IAC 6-3] |
|       | Compliance Determination Requirements  D.4.6 Testing Requirements [326 IAC 2-7-6(1)]   |
|       | Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] D.4.7 Visible Emissions Notations   |
|       | Record Keeping Requirements [326 IAC 2-7-5(3)] D.4.8 Record Keeping Requirements   |
| D.5   | FACILITY OPERATION CONDITIONS - Paint booth PTB-007, Soda Blaster BLA 037 41a  |
|       | Emission Limitations and Standards [326 IAC 2-7-5(1)] D.5.1 Particulate Matter (PM) [326 IAC 6-1-2] D.5.2 Opacity [326 IAC 2-7-10.5]   |
|       | D.5.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]   |
|       | Compliance Determination Requirements D.5.4 Particulate Matter (PM)  |
|       | Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] D.5.5 Visible Emissions Notations   |
|       | Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19] D.5.6 Record Keeping Requirements   |
| Emerg | cation Form  |

Page 5 of 10 T037-7736-00089

#### **SECTION A**

## **SOURCE SUMMARY**

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ), and presented in the permit application.

## A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary engine, transmission and differential parts remanufacturing plant.

Responsible Official: Michael A. Schwenk

Source Address: 815 Wernsing Road, Jasper, IN 47547 Mailing Address: P. O. Box 650, Jasper, IN 47547-0650

SIC Code: 3714 County Location: Dubois

County Status: Attainment for all criteria pollutants

Source Status: Part 70 Permit Program

Minor Source, under PSD Rules;

Major Source, Section 112 of the Clean Air Act

## A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (1) one (1) air atomization paint spray booth constructed in 1965, identified as Engine Booth, capable of painting a maximum of thirty (30) units per hour, using dry filters for overspray control, and exhausting through one (1) stack, identified as PTB001;
- one (1) air atomization paint spray booth constructed in 1978, identified as Stern Drive Booth, capable of painting a maximum of three (3) units per hour, using dry filters for overspray control, and exhausting through one (1) stack, identified as PTB002;
- one (1) air atomization paint spray booth constructed in 1994, identified as Radiator Booth, capable of painting a maximum of ten (10) units per hour, using dry filters for overspray control, and exhausting through one (1) stack, identified as PTB003;
- (4) one (1) air atomization paint spray booth constructed in 1970, identified as Diesel Engine Booth, capable of painting a maximum of three (3) units per hour, using dry filters for overspray control, and exhausting through one (1) stack, identified as PTB004;
- one (1) air atomization paint spray booth constructed in 1965, identified as Transmission Booth, capable of painting a maximum of twenty (20) units per hour, using dry filters for overspray control, and exhausting through one (1) stack, identified as PTB005;
- (6) fifteen (15) natural gas fired reciprocating internal combustion engines, identified as ACO008 through ACO011 and CGN001 through CGN011, each with a rated heat input of 0.725 million British thermal units per hour (mmBtu/hr) and a rated output of 102 horse power (HP);
- (7) three (3) #2 diesel fuel fired reciprocating internal combustion engines, identified as DYN001 through DYN003, each with a rated heat input of 10.5 mmBtu/hr and a rated output of 1500 HP;
- (8) one (1) #2 diesel fuel fired reciprocating internal combustion engine, identified as DYN004, with a rated heat input of 3.5 mmBtu/hr and a rated output of 500 HP;

#### First Minor Source Modification 037-16744-00089 Modified by CJF/MES

Page 6 of 10 T037-7736-00089

- (9) two (2) natural gas fired reciprocating internal combustion engines, identified as DYN005 and DYN019, each with a rated heat input of 1.4 mmBtu/hr and a rated output of 200 HP;
- one (1) #2 diesel fuel fired reciprocating internal combustion engine, identified as DYN006, with a rated heat input of 1.75 mmBtu/hr and a rated output of 250 HP;
- one (1) natural gas fired reciprocating internal combustion engine, identified as DYN007, with a rated heat input of 1.75 mmBtu/hr and a rated output of 250 HP;
- one (1) natural gas fired reciprocating internal combustion engine, identified as DYN008, using gasoline as back-up fuel, with a rated heat input of 3.5 mmBtu/hr and a rated output of 500 HP;
- (13) two (2) natural gas fired reciprocating internal combustion engines, identified as DYN010 and DYN018, each with a rated heat input of 0.84 mmBtu/hr and a rated output of 120 HP;
- one (1) natural gas fired reciprocating internal combustion engine, identified as DYN019, with a rated heat input of 1.4 mmBtu/hr and a rated output of 120 HP;
- one (1) natural gas fired reciprocating internal combustion engine, identified as DYN028, using gasoline as back-up fuel, with a rated heat input of 10.5 mmBtu/hr and a rated output of 1500 HP:
- (16) two (2) baghouses, identified as DUC051 and DUC023, each with a gas flow rate of greater than 4,000 actual cubic foot per minute, for controlling grinding and machining operations with an uncontrolled potential particulate emissions of greater than 25 pounds per day.
- (17) one (1) air atomization paint spray booth, identified as PTB-007, capable of painting a maximum of thirty (30) units per hour, using dry filters for overspray control, and exhausting through one (1) stack, identified as PB007.
- (18) one (1) soda blasting unit, identified as BLA-037, equipped with a baghouse for particulate control, identified as BLA-037, exhausting inside the building, capacity: 60 units per hour.

Page 7 of 10 T037-7736-00089

## **Stratospheric Ozone Protection**

## C.22 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## Parts 1 and 2 MACT Applications Submittal Requirements

- C.23 Application Requirements for Section 112(j) of the Clean Air Act [40 CFR 63.52(b) and (e)] [40 CFR 63.56(a)] [40 CFR 63.9(b)] [326 IAC 2-7-12]
  - (a) The Permittee shall submit a Part 1 Maximum Achievable Control Technology (MACT) Application in accordance with 40 CFR 63.52(b)(1) within thirty (30) days of startup of the new emission units. The Part 1 MACT Application shall meet the requirements of 40 CFR 63.53(a).
  - (b) The Permittee shall submit a Part 2 MACT Application in accordance with 40 CFR 63.52 (e)(1). The Part 2 MACT Application shall meet the requirements of 40 CFR 63.53(b).
  - (c) Notwithstanding paragraph (b), the Permittee is not required to submit a Part 2 MACT Application if the Permittee no longer meets the applicability criteria of 40 CFR 63.50 by the application deadline in 40 CFR 63.52(e)(1). For example, the Permittee would not have to submit a Part 2 MACT Application if, by the application deadline:
    - (1) The source is no longer a major source of hazardous air pollutants, as defined in 40 CFR 63.2:
    - (2) The source no longer includes one or more units in an affected source category for which the U.S. EPA failed to promulgate an emission standard by May 15, 2002; or
    - (3) The MACT standard or standards for the affected source categories included at the source are promulgated.
  - (d) Notwithstanding paragraph (b), pursuant to 40 CFR 63.56(a), the Permittee shall comply with an applicable promulgated MACT standard in accordance with the schedule provided in the MACT standard if the MACT standard is promulgated prior to the Part 2 MACT Application deadline or prior to the issuance of permit with a case-by-case Section 112(j) MACT determination. The MACT requirements include the applicable General Provisions requirements of 40 CFR 63, Subpart A. Pursuant to 40 CFR 63.9(b), the Permittee shall submit an initial notification not later than 120 days after the effective date of the MACT, unless the MACT specifies otherwise. The initial notification shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality

First Minor Source Modification 037-16744-00089 Modified by CJF/MES Page 8 of 10 T037-7736-00089

100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V Director, Air and Radiation Division 77 West Jackson Boulevard Chicago, Illinois 60604-3590

Page 9 of 10 T037-7736-00089

#### **SECTION D.5**

#### **FACILITY OPERATION CONDITIONS**

## Facility Description [326 IAC 2-7-5(15)]

- one (1) air atomization paint spray booth, identified as PTB-007, capable of painting a maximum of thirty (30) units per hour, using dry filters for overspray control, and exhausting through one (1) stack, identified as PB007.
- one (1) soda blasting unit, identified as BLA-037, equipped with a baghouse for particulate control, identified as BLA-037, exhausting inside the building, capacity: 60 units per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

## Emission Limitations and Standards [326 IAC 2-7-5(1)]

## D.5.1 Particulate Matter (PM) [326 IAC 6-1-2]

- (a) Pursuant to 326 IAC 6-1-2, particulate matter emissions from the one (1) air atomization paint spray booth, identified as PTB-007, shall not exceed 0.03 grains per dry standard cubic foot, equivalent to 0.385 pounds per hour at a flow rate of 1,500 cubic feet per minute.
- (b) Pursuant to 326 IAC 6-1-2, particulate matter emissions from the one (1) soda blasting unit, identified as BLA-037, shall not exceed 0.03 grains per dry standard cubic foot, equivalent to 0.154 pounds per hour at a flow rate of 600 cubic feet per minute.

## D.5.2 Opacity [326 IAC 2-7-10.5]

Pursuant to 326 IAC 2-7-10.5, there shall be no visible emissions (zero percent opacity) from the one (1) soda blasting unit, identified as BLA-037, when venting inside the building.

## D.5.3 Volatile Organic Compounds [326 IAC 8-2-9]

Any change or modification which would increase the actual emissions of VOC to fifteen (15) pounds per day or more from the one (1) air atomization paint spray booth, identified as PTB-007 shall obtain prior approval from IDEM, OAQ.

#### D.5.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the one (1) air atomization paint spray booth, identified as PTB-007 and the associated control devices.

#### **Compliance Determination Requirements**

## D.5.5 Particulate Matter (PM)

In order to comply with Condition D.5.1, the baghouse for PM control shall be in operation and control emissions from the one (1) soda blasting unit, identified as BLA-037 at all times that the one (1) soda blasting unit is in operation.

## Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

#### D.5.6 Visible Emissions Notations

Visible emission notations of the one (1) soda blasting unit exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

Page 10 of 10 T037-7736-00089

## Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

## D.5.7 Record Keeping Requirements

- (a) To document compliance with Condition D.5.3, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition D.5.3.
  - (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
  - (2) The cleanup solvent usage for each day;
  - (3) The total VOC usage for each day; and
  - (4) The weight of VOCs emitted for each compliance period.
- (b) To document compliance with Condition D.5.6, the Permittee shall maintain records of visible emission notations of the one (1) soda blasting unit exhaust once per shift, when venting to the atmosphere.

## Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Part 70 Minor Source Modification and Significant Permit Modification

## **Source Background and Description**

Source Name: Jasper Engine Exchange, Inc.

Source Location: 815 Wernsing Road, Jasper, IN 47547

County: Dubois SIC Code: 3714

Operation Permit No.:

Operation Permit Issuance Date:

Minor Source Modification No.:

Significant Permit Modification No.:

Permit Reviewer:

T 037-7736-00089

December 31, 1998
037-16744-00089
Craig J. Friederich

The Office of Air Quality (OAQ) has reviewed a modification application from Jasper Engine Exchange, Inc. relating to the construction and operation of the following emission units and pollution control devices:

- (a) one (1) air atomization paint spray booth, identified as PTB-007, capable of painting a maximum of thirty (30) units per hour, using dry filters for overspray control, and exhausting through one (1) stack, identified as PB007.
- (b) one (1) soda blasting unit, identified as BLA-037, equipped with a baghouse for particulate control, identified as BLA-037, exhausting inside the building, capacity: 60 units per hour.

## History

On January 29, 2003, Jasper Engine Exchange, Inc. submitted an application to the OAQ requesting to add an additional paint booth and a soda blasting unit to their existing plant. Jasper Engine Exchange, Inc. was issued a Part 70 permit on December 31, 1998.

## **Enforcement Issue**

There are no enforcement actions pending.

#### **Stack Summary**

| Stack ID | Operation           | <b>Height</b> (feet) | Diameter<br>(feet) | Flow Rate<br>(acfm) | Temperature<br>(EF) |  |
|----------|---------------------|----------------------|--------------------|---------------------|---------------------|--|
| PB007    | Paint Booth PTB-007 | 22.0                 | 1.00               | 1500                | Ambient             |  |

#### Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification and Significant Permit Modification be approved. This recommendation is based on the following facts and conditions:

Jasper Engine Exchange, Inc.Page 2 of 10Jasper, IndianaMinor Source Modification: 037-16744-00089

Permit Reviewer: CJF/MES Significant Permit Modification: 037-17110-00089

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 29, 2003. Additional information was received on March 27, 2003.

#### **Emission Calculations**

See pages 1 through 3 of 3 of Appendix A of this document for detailed emissions calculations.

#### **Potential To Emit of Modification**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

| Pollutant        | Potential To Emit<br>(tons/year) |
|------------------|----------------------------------|
| PM               | 68.6                             |
| PM <sub>10</sub> | 68.6                             |
| SO <sub>2</sub>  |                                  |
| VOC              | 1.04                             |
| CO               |                                  |
| NO <sub>X</sub>  |                                  |

| HAPs          | Potential To Emit<br>(tons/year) |
|---------------|----------------------------------|
| glycol ethers | 0.23                             |
| TOTAL         | 0.23                             |

#### **Justification for Modification**

The Part 70 Operating Permit is being modified through a Part 70 Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(d)(5), because the source has agreed to the following:

Use a particulate air pollution control device at the soda blasting unit as follows:

- (1) Achieving and maintaining ninety-nine percent (99%) control efficiency.
- (2) Complying with a no visible emission standard (Zero Opacity).

Jasper Engine Exchange, Inc.Page 3 of 10Jasper, IndianaMinor Source Modification: 037-16744-00089

Permit Reviewer: CJF/MES Significant Permit Modification: 037-17110-00089

(3) The potential to emit before controls does not exceed major source thresholds for federal permitting programs.

(4) Certifying to the commissioner that the control device supplier guarantees that a specific outlet concentration, in conjunction with design air flow, will result in actual emissions less than twenty-five (25) tons of particulate matter (PM) or fifteen (15) tons per year of particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM<sub>10</sub>).

The potential to emit of this modification is greater than twenty-five (25) tons per year. However, the source has agreed to the limits pursuant to 326 IAC 2-7-10.5(d)(5), which are shown above. Therefore, the Part 70 Operating Permit is being modified through a Part 70 Minor Source Modification. The proposed operating conditions shall be incorporated into the Part 70 Operating Permit as a Significant Permit Modification (SPM 037-17110-00089) in accordance with 326 IAC 2-7-12(d)(1). The modification requires a Significant Permit Modification since there are significant changes in the compliance monitoring and record keeping requirements of the operating permit. The Significant Permit Modification will give the source approval to operate the proposed emission units.

## **County Attainment Status**

The source is located in Dubois County.

| Pollutant        | Status     |
|------------------|------------|
| PM <sub>10</sub> | attainment |
| SO <sub>2</sub>  | attainment |
| NO <sub>2</sub>  | attainment |
| Ozone            | attainment |
| СО               | attainment |
| Lead             | attainment |

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Dubois County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Dubois County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Permit Reviewer: CJF/MES Significant Permit Modification: 037-17110-00089

#### **Source Status**

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

| Pollutant        | Emissions<br>(tons/year) |
|------------------|--------------------------|
| PM               | 39.9                     |
| PM <sub>10</sub> | 39.9                     |
| SO <sub>2</sub>  | 2.20                     |
| VOC              | 233                      |
| СО               | 44.4                     |
| NO <sub>X</sub>  | 249                      |

| HAPs          | Potential To Emit<br>(tons/year) |
|---------------|----------------------------------|
| Single HAP    | greater than 10                  |
| Combined HAPs | greater than 25                  |

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.
- (b) These emissions are based upon the Technical Support Document for T 037-7736-00089.

## **Potential to Emit of Modification After Issuance**

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

|                          | Potential to Emit<br>(tons/year) |                  |                 |      |     |                 |      |  |  |  |  |  |
|--------------------------|----------------------------------|------------------|-----------------|------|-----|-----------------|------|--|--|--|--|--|
| Process/facility         | PM                               | PM <sub>10</sub> | SO <sub>2</sub> | voc  | СО  | NO <sub>x</sub> | HAPs |  |  |  |  |  |
| Proposed<br>Modification | 0.007                            | 0.007            |                 | 1.04 |     |                 | 0.23 |  |  |  |  |  |
| PSD Threshold<br>Level   | 250                              | 250              | 250             | 250  | 250 | 250             | -    |  |  |  |  |  |

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Jasper Engine Exchange, Inc.Page 5 of 10Jasper, IndianaMinor Source Modification: 037-16744-00089

Permit Reviewer: CJF/MES Significant Permit Modification: 037-17110-00089

## **Federal Rule Applicability**

(a) This modification does not involve a pollutant-specific emissions unit:

- (1) with the potential to emit before controls equal to or greater than one hundred (100) tons per year, and
- (2) that is subject to an emission limit and has a control device that is necessary to meet that limit.

Therefore, the requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable.

- (b) The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are applicable to this source because the source is a major source of hazardous air pollutant (HAP) emissions (i.e., the source has the potential to emit 10 tons per year or greater of a single HAP or 25 tons per year or greater of a combination of HAPs) and the source is constructing one or more units that belong to one or more source categories affected by the Section 112(j) Maximum Achievable Control Technology (MACT) Hammer date of May 15, 2002. This rule requires the Permittee to:
  - (1) Submit a Part 1 MACT Application within thirty (30) days of startup of the new emission units; and
  - (2) Submit a Part 2 MACT Application within twenty-four (24) months after the Permittee submitted a Part 1 MACT Application.

Note that on April 25, 2002, Earthjustice filed a lawsuit against the US EPA regarding the April 5, 2002 revisions to the rules implementing Section 112(j) of the Clean Air Act. In particular, Earthjustice is challenging the US EPA's 24-month period between the Part 1 and Part 2 MACT Application due dates. Therefore, the Part 2 MACT Application due date may be changed as a result of the suit. Based on a proposed settlement published in the August 26, 2002 *Federal Register*, it appears that US EPA intends to revise the rule so that the due date of the Part 2 MACT Application will be within twelve (12) months after the Permittee submitted the Part 1 MACT application.

- (3) Pursuant to 40 CFR 63.56(a), the Permittee shall comply with an applicable promulgated MACT standard in accordance with the schedule provided in the MACT standard if the MACT standard is promulgated prior to the Part 2 MACT Application deadline or prior to the issuance of permit with a case-by-case Section 112(j) MACT determination. The MACT requirements include the applicable General Provisions requirements of 40 CFR 63, Subpart A. Pursuant to 40 CFR 63.9(b), the Permittee shall submit an initial notification not later than 120 days after the effective date of the MACT, unless the MACT specifies otherwise. The MACT and the General Provisions of 40 CFR 63, Subpart A will become new applicable requirements, as defined by 326 IAC 2-7-1(6), that must be incorporated into the Part 70 permit. After IDEM, OAQ receives the initial notification, any of the following will occur:
  - (A) If three or more years remain on the Part 70 permit term at the time the MACT is promulgated, IDEM, OAQ will notify the source that IDEM, OAQ will reopen the permit to include the MACT requirements pursuant to 326 IAC 2-7-9; or

Jasper Engine Exchange, Inc.

Page 6 of 10

Jasper, Indiana

Minor Source Modification: 037-16744-00089

Permit Reviewer: CJF/MES

Significant Permit Modification: 037-17110-00089

(B) If less than three years remain on the Part 70 permit term at the time the MACT is promulgated, the Permittee must include information regarding the MACT in the renewal application, including the information required in 326 IAC 2-7-4(c); or

(C) The Permittee may submit an application for a significant permit modification under 326 IAC 2-7-12 to incorporate the MACT requirements. The application may include information regarding which portions of the MACT are applicable to the emission units at the source and which compliance options will be followed.

## State Rule Applicability - Individual Facilities

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

This is a minor modification to an existing minor PSD source. Since the potential to emit for the entire source after the modification will remain less than two-hundred fifty (250) tons per year for all pollutants, and it is not one of the 28 listed source categories, this source will remain a minor source, after this modification, pursuant to 326 IAC 2-2.

326 IAC 6-1-2 (Particulate Matter; Non-attainment Area Limitations)

The potential to emit PM from the entire source is greater than one-hundred (100) tons per year, and the source is located in Dubois county. Therefore, the requirements of 326 IAC 6-1-2 are applicable.

- (a) Pursuant to 326 IAC 6-1-2, particulate matter emissions from the one (1) air atomization paint spray booth, identified as PTB-007, shall not exceed 0.03 grains per dry standard cubic foot, equivalent to 0.385 pounds per hour at a flow rate of 1,500 cubic feet per minute.
  - Based on Appendix A, the potential to emit PM from the paint spray booth is 0.255 pounds per hour, before controls. Therefore, the one (1) air atomization paint spray booth, identified as PTB-007, is in compliance with this limit.
- (b) Pursuant to 326 IAC 6-1-2, particulate matter emissions from the one (1) soda blasting unit, identified as BLA-037, shall not exceed 0.03 grains per dry standard cubic foot, equivalent to 0.154 pounds per hour at a flow rate of 600 cubic feet per minute.

Based on Appendix A, the outlet grain loading at the one (1) soda blasting unit, identified as BLA-037, is 0.000292 grains per dry standard cubic foot, equivalent to 0.0015 pounds per hour, after controls. Therefore, the one (1) soda blasting unit, identified as BLA-037, is in compliance with this limit. The baghouse shall be in operation at all times the one (1) soda blasting unit is in operation.

## 326 IAC 8-2-9 (Miscellaneous Metal Coating)

The potential to emit VOC from the one (1) air atomization paint spray booth, identified as PTB-007, is less than fifteen (15) pounds per day. Therefore, the requirements of 326 IAC 8-2-9 are not applicable. Any change or modification which would increase the potential to emit VOC to fifteen (15) pounds per day or more from the one (1) air atomization paint spray booth, identified as PTB-007 shall obtain prior approval from IDEM, OAQ.

Jasper Engine Exchange, Inc.

Jasper, Indiana Minor Source Modification: 037-16744-00089
Permit Reviewer: CJF/MES Significant Permit Modification: 037-17110-00089

Page 7 of 10

## **Compliance Requirements**

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The one (1) soda blasting unit has applicable compliance monitoring conditions as specified below:

Daily visible emissions notations of the one (1) soda blasting unit exhaust shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

These monitoring conditions are necessary to ensure compliance with the requirements of 326 IAC 2-7-10.5

#### **Proposed Changes**

The permit language is changed to read as follows (deleted language appears as strikeouts, new language appears in **bold**):

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (17) one (1) air atomization paint spray booth, identified as PTB-007, capable of painting a maximum of thirty (30) units per hour, using dry filters for overspray control, and exhausting through one (1) stack, identified as PB007.
- (18) one (1) soda blasting unit, identified as BLA-037, equipped with a baghouse for particulate control, identified as BLA-037, exhausting inside the building, capacity: 60 units per hour.

Jasper Engine Exchange, Inc.

Page 8 of 10

Jasper, Indiana

Minor Source Modification: 037-16744-00089

Permit Reviewer: CJF/MES Significant Permit Modification: 037-17110-00089

## Parts 1 and 2 MACT Applications Submittal Requirements

C.23 Application Requirements for Section 112(j) of the Clean Air Act [40 CFR 63.52(b) and (e)] [40 CFR 63.56(a)] [40 CFR 63.9(b)] [326 IAC 2-7-12]

- (a) The Permittee shall submit a Part 1 Maximum Achievable Control Technology (MACT) Application in accordance with 40 CFR 63.52(b)(1) within thirty (30) days of startup of the new emission units. The Part 1 MACT Application shall meet the requirements of 40 CFR 63.53(a).
- (b) The Permittee shall submit a Part 2 MACT Application in accordance with 40 CFR 63.52 (e)(1). The Part 2 MACT Application shall meet the requirements of 40 CFR 63.53(b).
- (c) Notwithstanding paragraph (b), the Permittee is not required to submit a Part 2 MACT Application if the Permittee no longer meets the applicability criteria of 40 CFR 63.50 by the application deadline in 40 CFR 63.52(e)(1). For example, the Permittee would not have to submit a Part 2 MACT Application if, by the application deadline:
  - (1) The source is no longer a major source of hazardous air pollutants, as defined in 40 CFR 63.2;
  - (2) The source no longer includes one or more units in an affected source category for which the U.S. EPA failed to promulgate an emission standard by May 15, 2002; or
  - (3) The MACT standard or standards for the affected source categories included at the source are promulgated.
- (d) Notwithstanding paragraph (b), pursuant to 40 CFR 63.56(a), the Permittee shall comply with an applicable promulgated MACT standard in accordance with the schedule provided in the MACT standard if the MACT standard is promulgated prior to the Part 2 MACT Application deadline or prior to the issuance of permit with a case-bycase Section 112(j) MACT determination. The MACT requirements include the applicable General Provisions requirements of 40 CFR 63, Subpart A. Pursuant to 40 CFR 63.9(b), the Permittee shall submit an initial notification not later than 120 days after the effective date of the MACT, unless the MACT specifies otherwise. The initial notification shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V Director, Air and Radiation Division 77 West Jackson Boulevard Chicago, Illinois 60604-3590

Jasper Engine Exchange, Inc.

Jasper, Indiana

Minor Source Modification: 037-16744-00089 Permit Reviewer: CJF/MES Significant Permit Modification: 037-17110-00089

Page 9 of 10

#### **SECTION D.5**

#### **FACILITY OPERATION CONDITIONS**

## Facility Description [326 IAC 2-7-5(15)]

- (17)one (1) air atomization paint spray booth, identified as PTB-007, capable of painting a maximum of thirty (30) units per hour, using dry filters for overspray control, and exhausting through one (1) stack, identified as PB007.
- (18) one (1) soda blasting unit, identified as BLA-037, equipped with a baghouse for particulate control, identified as BLA-037, exhausting inside the building, capacity: 60 units per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### Particulate Matter (PM) [326 IAC 6-1-2] D.5.1

- Pursuant to 326 IAC 6-1-2, particulate matter emissions from the one (1) air atomi-(a) zation paint spray booth, identified as PTB-007, shall not exceed 0.03 grains per dry standard cubic foot, equivalent to 0.385 pounds per hour at a flow rate of 1,500 cubic feet per minute.
- Pursuant to 326 IAC 6-1-2, particulate matter emissions from the one (1) soda blasting (b) unit, identified as BLA-037, shall not exceed 0.03 grains per dry standard cubic foot, equivalent to 0.154 pounds per hour at a flow rate of 600 cubic feet per minute.

#### D.5.2 Opacity [326 IAC 2-7-10.5]

Pursuant to 326 IAC 2-7-10.5, there shall be no visible emissions (zero percent opacity) from the one (1) soda blasting unit, identified as BLA-037, when venting inside the building.

## **Volatile Organic Compounds [326 IAC 8-2-9]**

Any change or modification which would increase the actual emissions of VOC to fifteen (15) pounds per day or more from the one (1) air atomization paint spray booth, identified as PTB-007 shall obtain prior approval from IDEM, OAQ.

## Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the one (1) air atomization paint spray booth, identified as PTB-007 and the associated control devices.

## **Compliance Determination Requirements**

#### Particulate Matter (PM) D.5.5

In order to comply with Condition D.5.1, the baghouse for PM control shall be in operation and control emissions from the one (1) soda blasting unit, identified as BLA-037 at all times that the one (1) soda blasting unit is in operation.

Jasper Engine Exchange, Inc.

Jasper, Indiana

Minor Source Modification: 037-16744-00089 Permit Reviewer: CJF/MES Significant Permit Modification: 037-17110-00089

Page 10 of 10

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

#### **D.5.6** Visible Emissions Notations

Visible emission notations of the one (1) soda blasting unit exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

## **Record Keeping Requirements**

- To document compliance with Condition D.5.3, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition D.5.3.
  - (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
  - (2) The cleanup solvent usage for each day;
  - (3) The total VOC usage for each day; and
  - (4) The weight of VOCs emitted for each compliance period.
- (b) To document compliance with Condition D.5.6, the Permittee shall maintain records of visible emission notations of the one (1) soda blasting unit exhaust once per shift, when venting to the atmosphere.

The name of IDEM's "Office of Air Management" was changed to "Office of Air Quality" on January 1, 2001. All references to "Office of Air Management" in the permit have been changed to "Office of Air Quality" and all references to "OAM" have been changed to "OAQ."

## Conclusion

The construction and operation of this Proposed Modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No.037-16744-00089 and Significant Permit Modification No.037-17110-00089.

#### Page 1 of 3 TSD App A

Appendix A: Emissions Calculations **VOC and Particulate** From Surface Coating Operations

Company Name: Jasper Engine Exchange, Inc.
Address City IN Zip: 815 Wernsing Road, Jasper, Indiana 47574

MSM: 037-16744 PIt ID: 037-00089

Reviewer: Craig J. Friederich Date: January 29, 2003

| Material     | Density<br>(lbs/gal) | Weight %<br>Volatile (H20 &<br>Organics) | Weight %<br>Water | Weight %<br>Organics | Volume %<br>Water | Volume %<br>Non-Volatiles<br>(solids) | Gal of Mat.<br>(gal/unit) | Maximum<br>(units/hour) | Pounds VOC per<br>gallon of coating<br>less water | Pounds VOC per gallon of coating |      | Potential VOC (pounds per day) |      | Particulate Potential (tons/yr) |      | Transfer<br>Efficiency |
|--------------|----------------------|--|-------------------|----------------------|-------------------|---------------------------------------|---------------------------|-------------------------|---|----------------------------------|------|--------------------------------|------|---------------------------------|------|------------------------|
| Booth PTB007 |                      |  |                   |                      |                   |                                       |                           |                         |   |                                  |      |                                |      |                                 |      |                        |
| F77AC503     | 8.86                 | 61.40%                                   | 52.5%             | 8.9%                 | 55.8%             | 33.80%                                | 0.01000                   | 30.000                  | 1.78  | 0.79                             | 0.24 | 5.68                           | 1.04 | 1.12                            | 2.33 | 75%                    |
|              |                      |  |                   |                      |                   |                                       |                           | PM                      | Control Efficiency                                | 90.00%                           |      |                                |      |                                 |      |                        |

Potential to Emit Add worst case coating to all solvents Uncontrolled 0.24 5.68 1.04 1.12 Controlled 0.24 5.68 1.04 0.11

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lbs/gal) \* Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating ([bs/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \* (1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

## Page 2 of 3 TSD AppA

Appendix A: Emission Calculations HAP Emission Calculations

Company Name: Jasper Engine Exchange, Inc. Address City IN Zip: 815 Wernsing Road, Jasper, Indiana 47574

MSM: 037-16744 Plt ID: 037-00089

Reviewer: Craig J. Friederich Date: January 29, 2003

| Material     | Density<br>(lbs/gal) | Gallons of<br>Material<br>(gal/unit) | Maximum<br>(unit/hour) |       | Weight %<br>Toluene | Weight %<br>Formaldehyde | Weight %<br>Benzene | Weight %<br>Hexane | Weight %<br>Glycol Ethers | Weight %<br>Methanol | Xylene<br>Emissions | Toluene<br>Emissions | Formaldehyde<br>Emissions | Benzene<br>Emissions | Hexane<br>Emissions | Glycol Ether<br>Emissions | Methanol<br>Emissions |
|--------------|----------------------|--------------------------------------|------------------------|-------|---------------------|--------------------------|---------------------|--------------------|---------------------------|----------------------|---------------------|----------------------|---------------------------|----------------------|---------------------|---------------------------|-----------------------|
| Booth PTB007 |                      |                                      |                        |       |                     |                          |                     |                    |                           |                      | (tons/yr)           | (tons/yr)            | (tons/yr)                 | (tons/yr)            | (tons/yr)           | (tons/yr)                 | (tons/yr)             |
| F77AC503     | 8.86                 | 0.01000                              | 30.000                 | 0.00% | 0.00%               | 0.00%                    | 0.00%               | 0.00%              | 2.00%                     | 0.00%                | 0.00                | 0.00                 | 0.00                      | 0.00                 | 0.00                | 0.23                      | 0.00                  |
|              |                      |                                      |                        |       |                     |                          |                     |                    |                           |                      | 0.00                | 0.00                 | 0.00                      | 0.00                 | 0.00                | 0.23                      | 0.00                  |
|              |                      |                                      |                        |       |                     |                          |                     |                    |                           |                      |                     |                      |                           |                      |                     | Overall Total             | 0.23                  |

#### METHODOLOGY

HAPS emission rate (tons/yr) = Density (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (unit/hr) \* Weight % HAP \* 8760 hrs/yr \* 1 ton/2000 lbs

## Page 3 of 3 TSD App A

**Company Name: Jasper Engine Exchange, Inc.** 

Address City IN Zip: 815 Wernsing Road, Jasper, Indiana 47574

MSM: 037-16744 PIt ID: 037-00089

Reviewer: Craig J. Friederich

**Date: January 29, 2003** 

| Product              | Maximum<br>Rate | Emission<br>Factor | PM<br>Emissions | Controlled PM<br>Emissions |  |  |
|----------------------|-----------------|--------------------|-----------------|----------------------------|--|--|
|                      | (units/hr)      | (lbs/unit)         | (ton/yr)        | (tons/yr)                  |  |  |
|                      |                 |                    |                 |                            |  |  |
| Soda Blaster BLA-037 | 60.00           | 0.25               | 65.7            | 0.007                      |  |  |

## Methodology

Emission Factor in lbs/unit = from manufacturers specifications

Emission Rate in tons/yr = Emission Factor (lbs/unit) \*Maximum Rate (units/yr)\* 8760 / 2000.